



29476/8

COPY OF A SPECIAL REPORT



ON THE

# STATE OF VACCINATION

IN THE

SAUGOR AND NERBUDDA TERRITORIES, FOR 1835-36.

By H. Hough, Esquire.

Superintending Surgeon, Saugor or 7th Division of the Army.

1st.—After a variety of attempts which were made by Dr. Irvine, the medical officer in charge of the civil station and troops at Hussingabad, from the month of April, 1835, to the end of the rains, for the purpose of endeavouring to regenerate the vaccine disease by inoculating cows and bullocks freely, from fresh confluent variola, which failed; and after having failed to introduce vaccination generally, by the ordinary means; the season unfavorable for the transmission of the virus passed away; when, a supply of good lymph was directed by the Medical Board to be forwarded to Saugor by the superintendent general and the superintendent of vaccination at Benares. The latter officer was directed to forward a fresh supply of vaccine lymph to Saugor once in every fortnight; and this was done for sometime; so that, by the middle of December, vaccination was becoming general. Nevertheless, antecedently to this period, vaccination had been re-established at Hussingabad in the beginning of October from lymph which Dr. Irvine had received from the Presidency of Bombay, and no less a number than 153 successful cases were reported by that gentleman to the superintending surgeon of this division as having been collected by him in the first month; a roll of which was forwarded from this office to Mr. Secretary Hutchinson, on the 22nd November last.

2nd.—From that period to the close of the last cold season vaccination has been spread over the district from Saugor to Huttah, Rehlie, Nagound, and Jubbulpore, on the northern boundary of the Saugor and Nerbudda territories, from west to east; and on the southern boundary from Hussingabad to Gurrawarra and Seonee in the same direction, and as many as 1803 children (inclusive of vaccination occurring in the corps in the division) have been vaccinated by the superintendents Drs. Spilsbury and Foley, and also by Dr. Irvine and Mr. Assistant Surgeon Garbet; and the following is the substance of the reports of those gentlemen as to the state of vaccination during the past six months.

3rd.—Abstract of correspondence from the Medical Staff of the Saugor Division on the subject of vaccination.

## JUBBULPORE,—DR. SPILSBURY.

January, February, and March.

1st.—Failure of all the vaccinations by Mr. Assistant Surgeon McDonald of the 29th Regiment Native Infantry, and by the native vaccinator; consequently no lymph or crust.

2nd.—Accounting for the little success of vaccination at Jubbulpore from the absence of Dr. Spilsbury on duty.

3rd.—On the approach of hot winds vaccination invariably ceases to produce any effect. No supply of crust or lymph of any use during that period or the rains.

4th.—Prejudices of the natives against vaccination,—they consider it an act of irreligion. No prospect of its diffusion generally, so as to afford reasonable ground of its being kept up in that vicinity.

## March and April.

5th.—In March and April a sufficient number presented themselves to keep up a supply; towards the end of April the virus deteriorated, and in May the reports were blank.

6th.—No person unconnected with Europeans allowed himself or family to be vaccinated.

7th.—The prejudices of the natives give little field for zeal or activity.

8th.—Small pox raged considerably, great mortality among children. Among numerous children, vaccinated during the last twelve years,' several modified cases of small pox appeared, all of a very trifling nature.

## JUBBULPORE,—DR. SMITH,

33rd Regiment Native Infantry.

March, April, and May, 1836.

9th.—No application for vaccination; no case of small pox.

## GURRAWARRA,—DR. SIMPSON.

April.

10th.—Vaccination failed; the supply of crusts and lymph received from Dr. Irvine produced spurious pustules. Weather too hot for success; no case of small pox.

## BAITOOL,—DR. BARKER.

January, 1836.

11th.—No vaccination, requesting a supply of lymph, (complied with).

June.

12th.—No native vaccinator; native doctor cannot spare time to visit the villages, and the people will not bring their children to cantonments to be vaccinated.

13th.—Small pox prevailing very little.

#### HUSSINGABAD, -DR. IRVINE.

## January.

14th.—Case of confluent small pox during vaccination; disease not at all modified, though the vesicles came to maturity.

#### March.

15th.—Vaccine virus deteriorated on approach of hot winds. No supply of lymph.

## April, 1836.

16th.—No lymph, doubts of success; all attempts to establish vaccination during the hot season having failed.

17th.—Supply of subjects for vaccinations scanty, all the villages near Hussingabad having been vaccinated.

18th.—Two cases of mild distinct small pox occurred in the persons of two children; one vaccinated in October, the other in March last. The parents destroyed the vaccine vesicles at the time.

## HUSSINGABAD,-MR. ASSISTANT SURGEON WATSON.

#### June.

19th.—The natives averse to have their children vaccinated during the rains. A sufficient number at present to keep up the virus. Native vaccinator zealous and active; small pox not prevailing.

20th.—The returns of vaccination for July are blank. Saugor is the only station where vaccination is going on at present, in this division.

- 4. From the accompanying\* numerical abstract of vaccinations within the Saugor and Nerbudda territories within the last ten months, it should seem, that, as compared with\* population returns of these districts of the years 1832-3,—that, the relative proportion of vaccination to population was, during the period alluded to, not less than one in 1100, supposing the population to have remained nearly stationary during the last 4 years.
- 5. The number of vaccinations, exhibited in table No. 1, of the appendix to Dr. Cameron's report on vaccination, from the year 1819 to 29 inclusive, as furnished to the Medical Board in 1831 on an average of ten years, or from 1818 to 28, were 273,890; and this number of vaccinations having taken place among the whole of the population of Bengal, and provinces dependent upon this presidency, from the Delta of the Ganges, to Simla and the western provinces, comprehending a population which, being considered as comparable in equality with the census of the provinces of Bengal, Behar, and Orissa as given by Mr. Henry Colebrooke in 1802, and stated at that period to be from 28 to 32 millions, would assign an aggregate population of vaccination to population during those ten years, to have been so little as 1 to 1500 nearly.

<sup>\*</sup> Vide appendix to this report.

<sup>+</sup> Commerce and husbandry of Bengal 1802.

- 6. Whereas it should appear that the very first attempt to re-establish vaccination in the Saugor and Nerbudda territories was attended with the greater success of one in 1100 of the population of these districts.
- 7. This result is the more surprising, since Mr. Superintending Surgeon C. Campbell, in his report on the subject (30th September 1830), especially rcmarks, that, "with respect to the security afforded by vaccination, I need hardly state, that it is only among the children of native officers and sepoys at military stations, it is possible to carry the practice to any extent in these provinces." "In some instances the more intelligent chiefs, in the vicinity of the political residencies, have submitted their families to the process; but the general apathy, which exists on the subject among the great body of the people, has been always such as to defeat every attempt to propagate the preventive disease, or to keep it up throughout the year; and, it may be safely assumed, that, in most of the districts from which the following information has been collected, vaccination has never been practised. Inoculation with variolous matter appears to be as little employed." (Vide page 28 appendix to Dr. Cameron's report, 1831). Whereas the practice of vaccination in the last year, instead of being confined to the "children of native officers and sepoys at military stations," has been almost exclusively confined to the population of towns and villages, as the monthly returns of corps respectively since the month of October last year, so remarkably evidenced in the fact, that the total of vaccinations, occurring intencorps comprising this division of the army, did not exceed twenty-three cases, or little more than one-hundredth part of all the vaccinations, which is a complete refutation of Mr. Superintending Surgeon C. Campbell's observation, as stated in the 3rd paragraph of that gentleman's letter, dated 30th September, 1830.
- 8. The number of vaccinations, reported by the National Vaccine Board in March 1831, to Lord Melbourne, appear to have been about one vaccination to one hundred of the population, putting that of the London districts at 1,600,000, as is thought to be the case; and putting the poor at three-fourths of this amount, or 1,200,000, we arrive at the above conclusion. It may be fairly supposed that the remainder of the population would give 4000 more, or assuming that the annual vaccinations not only in the London districts, but generally throughout the entire of the British dominions in Europe, to average one per cent of their population; and this would suppose certainly no smaller annual vaccination than of 250,000 children; or, nearly ten times the proportionate average of vaccinations in an Indian population of forty millions and upwards.
- 9. So, that, Mr. Camcron's statement at page 18 of the report, that "the tables 1 and 2 in the Appendix shew that in the course of eleven years between 3 and 4 hundred thousand persons have been vaccinated in Bengal," (had it been really confined to Bengal proper,) would have been a matter of little con-

gratulation to the Government, but, when applied to the whole of the provinces under the Bengal presidency, seems to be any thing but a subject affording much satisfaction.

- 10. At page 64 of the appendix to the report, it appears that, from the general amount of 5,182 cases of variola occurring in 1830, in the northern division of Moradabad, 3,585 cases recovered, and 1,597 proved fatal; or, the fatal cases were about 30 in 100 of all cases of variola that occurred in that year, and that the mortality among variolous patients in the town of Nuggeenah alone, out of 1,266 cases, 854 only recovered and 412 were fatal. And as my own experience has more than 23 years back confirmed similar results, nearly, as occurring at Seharunpore in 1813-14-15 and 1816, or, the northern division of the zillah of Meerut containing about 5, or, 6,00,000, inhabitants; a similar proportion of mortality occurring among a like proportion of cases of small pox in the Saugor and Nerbudda territories, would raise the number of deaths from this cause to nearly 20,000 casualties in some years; or to ten or twelve times the number of the greatest extent of vaccination that seems hitherto to have attained in these parts.
- 11. And because it may be assumed, that the population of Saugor &c. is spread over at least double the area that Munneepoor presents, it may suffice to assign 75 (or half the vaccinations per mensem performed by Mahomud Nazeer at that place in 1830), and for 7 months this would give about 500 vaccinations annually to each native vaccinator; so that, in order to give vaccination a full operation in so large a territory (nearly 40,000 square miles, or half as much more area as Ireland's surface), it would be requisite that the establishment of native vaccinators alone ought not to fall below 40 for the whole of the Saugor and Nerbudda territories, i. e. to give vaccination as great activity as it obtains in the United Kingdom. It is scarcely necessary to observe, that, vaccination to be performed effectually, and to be properly superintended in districts containing twenty lakhs of inhabitants and covering a surface exceeding that of Ireland, ought to have at least as many vaccinators as is above indicated, and that there ought not to be less than 3 superintendents, whose duty it should be to travel among the villages within their respective circles from the 1st of November to the 30th of May in each year.
- 12. To conduct the duties of so important a branch of the medical department, as vaccination is, in an efficient manner, no doubt some considerable expense must be incurred; and as the home authorities have limited the amount of the charge on this account, and as the sum so limited is totally inadequate to produce any result of sufficient magnitude to accomplish the object for which it is granted, some other mode than that of depending on the public treasury ought undoubtedly to be resorted to. The Right Honourable the Governor General, recently, in the reply of his lordship to Mr. Martin's letter on the subject of a fever hospital in Calcutta, took occasion to allude to the

propriety of the natives entering into charitable subscriptions, as the gentry of England are accustomed to do. In approaching a subject of so delicate a complexion, it is necessary to do so with all possible deference to the high authority alluded to; but yet, a residence among this people for a period nothing short of a quarter of a century has not served to shake the opinion, that the population of Hindustan is not quite so advanced in civilization as was that of France in the days of Colbert; and that the Hindus, it is humbly imagined, of the present day, are by no means properly prepared to say to the Government "laissez nous fairi."

- 13. At the end of the appendix will be found the outline of a plan for the extinction of small pox drawn up by Dr. Foley, by the desire of the superintending surgeon of the division, which, it is hoped, will not be unacceptable to the Medical Board.
- 14. Dr. Foley's system of propagating and keeping up vaccination is so judicious and successful, that I am confident that the Board will feel disposed to attach weight to the opinions of that gentleman.
- 15. Saugor is the only place, now, in which vaccination is going on, and I have little doubt that Dr. Foley's exertions will enable him to carry on the practice to the cold season; when supplies of lymph may be forwarded to the distant parts of these districts, and thus renew the vaccine inoculation at every station and post within this circle of superintendence.

#### APPENDIX.

It is relevant to the subject to quote a portion of the 4th paragraph of the report of the Vaccine Board as made to Lord Melbourne in March 1831: "it is impracticable to keep up a continued supply any where, but in the capital; where numerous appointed vaccinators assist and support each other." Since the great distance from one station to another, in these extensive districts and territories, may serve to account for the failure of vaccination in some instances; while the apathy of the natives, assisted by an uncontrollable conduct towards their children, cannot fail of eliciting the approbation of the Board of the zeal and able management which have enabled the superintendent of vaccination at Saugor, to keep up vaccination to the present time, with so many obstacles opposed to him as are known to exist everywhere, and as are reported by the medical staff at the different stations as stated in the abstract of reports to this office on this subject.

A complaint was made to the superintendent surgeon, during his tour last year, that the zeal for vaccination of the medical officer at Hussingabad had so far alarmed the inhabitants of some of the villages as to cause them to desert, and this circumstance led to the publication of a proclamation by the local

civil authority at the station of Baitool, declaring that no vaccinating officer would be permitted to disturb them.

There is some reason to think that this alarm was in a great degree similated for some sinister design; since this statement very little quadrates with the satisfactory and peaceable progress of vaccination on the northern side of the Saugor and Nerbudda territory; and which, if it deserve any particular attention, might serve to point to a too sanguine desire to acquire a reputation for activity and zeal in the prosecution of this very valuable practice; and at the same time to demonstrate, that the even-handed and judicious method of treating the rural population of the northern portion of this district, has not only been productive of the happiest results; but has served to indicate the necessity there exists of selecting such agents as are properly qualified to deal successfully with the prejudices of the rural population more especially.

This last observation will be considered to be of no little weight when the scale of expence or strength of establishment is fixed at a mininum.

In the 3rd paragraph of the report of the Vaccine Board of Great Britain in deprecating the abandonment of vaccination to the discretion and good sense of the public, and predicating of such a determination on the part of the legislature as a means of leaving "the country unprepared and unprovided with means of defence, and that a great mortality from small pox would be an early consequence of the breaking up the establishment," decidedly recognises in the establishment of vaccination in perpetuity and efficient activity a 'Cordon Sanitaire' a 'Prophylaxis' against Pestilence; and, that anything short of an efficient establishment would not be preventive of such a scourge as small pox has ever proved in all countries, and which, often occurring in Hindustan in the form of a malignant epidemic, is a matter that most nearly concerns the state. And if, in the report of the Vaccine Board to Lord Melbourne in 1831, the fact could be brought to his lordship's notice that "numerous appointed vaccinators assist, and support each other," among a dense population far inferior to that of these very extensive and thinly peopled territories; how, it may be asked, can it be reasonably expected, that eight native vaccinators shall be able to fulfil the intentions of the Government, however active and zealous they may be, when their services are demanded by two millions of people spread over a surface of nearly 40,000 square miles?

The tact and discernment, which are indispensably necessary for superintending the operations of the native vaccinator, are alike demanded in the selection and training of the inferior agents of this important branch of the vaccine establishment. It should seem that the appointment of any native doctor, to such a charge, without reference to the *sine qua non* condition, steadiness, intelligence, and versatileness, would be totally inadmissible; if such a course, even, were not obnoxious to the very serious objection—that of

rendering the military branch of the medical department inefficient, in many instances.

It cannot be questioned that, for a long period, the Government itself must take the lead in all matters of great moral movements, and, although the prophecy of Burke could not be easily realized in the present day, there can be little doubt that we have not as yet fulfilled all the conditions required by a modern political writer of celebrity, who, in pointing to the period at which Hindustan would be able to dispense with the civilizing aid of an European state, observes, "Arrivées à ce point ni l'Angleterre, ni l'Europe n'ont plus bésoin de la souverainitié de l'Inde\*."

The necessity there is, then, for the Government to support an efficient system of vaccination being indisputable; and the scale on which vaccination has been hitherto conducted from its first introduction into India to the present day, being found to be quite inadequate to the end proposed; the means necessary for a proper support of vaccination become a subject of no inconsiderable moment.

Alocal fiscal arrangement might, it is conceived, be rendered easily available for the purpose of defraying the charge of vaccination on a most extensive scale; and this might be almost totally confined to towns and cities. A tax on houses would be a very equitable impost for such an object, and if this sort of assessment should be found to have a tendency to diminish the means of the people for supporting gorgeous pageants, it would become a mean of operating upon the native character in the very way in which Government is most anxious and is most interested to influence them, by teaching them to prefer acts of charity to those of idle ostentation. The native population of India can never be taught in any other than in a practical manner. Accustomed as it is to feel interest solely in objects which are within the ready grasp of individuals, the natives have no notion of fixing any value upon a system of a complicated nature requiring a long and patient perseverance to bring it to maturity.—

## APPENDIX.

	TABLE	No. 1.
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Population of the Saugor a	nd Nerbudo	la Territo	ries accor	eding to census of 183	2-3.
Saugor					
Jubbulpore	447,236	22	14,012	,,	
Nursingpore	303,205	,,	9,855	,,	
Huttah	162,955	,,	5,681	,,	
Seonee	275,452	,,	6,852	,,	
Baitool	185,477	,,	2,725	,,	
Hussingabad	206,292	"	7,713	,,	
Rehlie	150,532	,,	4,510	,,	
Ī	,995,833		66,033	Mussulmen	
		1,	929,800	Hindoos	
		1	,995,833	Total of both	

<sup>\*</sup> Vrai system de l' Europe, &c. par l' Abbe de Pradt.

Table No. 2.

Numerical Abstract of Vaccinations in Civil Stations within the Saugor Circle, from October 1835 to July 1836, both inclusive.

Civil Stations.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	Total.	Remarks.
Saugor*	0	0	72	64	59	77	111	75	175	46	679	
Jubbulpore	0	0	0	0	0	43	64	7	0	0		Hutta & Rehli
	153	110	152	125	100	69	6	6	6	0	727	at Baitool and
Seonee	0	0	0	7	8	19	40	143	43	0	260	Nursingpore.
	-			-	- 05					16	1700	NT- X7
Total	153	110	224	196	1167	1208	221	(231	224	40	1780	No Vaccinations

TABLE NO. 3.

Numerical Abstract of Vaccinations in Military Corps in the Saugor Division, from October, 1835, to July 1836, both inclusive.

Corps.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	Total 10 months.	Remarks.
2nd Regt. N. Infantry	0	1 . 0	3	0	0	0	0	0	0	0	3	
64th do	0	0	4	9	1	0	0	0	0	0	14	Only one 78th
69th do	0	0	0	0	0	0	0	0	0	0	0	part of total num-
72nd do	0	0	0	0	1	0	0	0	0	0	1	ber of Vaccina-
29th do	0	0	1	0	0	0	0	0	0	0	1	tions.
33rd do	0	0	0	0	0	0	0	0		0	0	
46th do	0	0	0	0	0	0	0	0	0	0	0	
66th do	0	0	0	0	0	0	0	0	0	0	0	
2nd Local Horse	0	0	0	0	0	0	0	0	0	0	0	
European Artillery	0	0	2	0	2	0	0	0	0	0	′ 4	
Native Artillery	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	10	9	4	0	О	0	0	0	23	

TABLE No. 4.

Number of Vaccinations in the Saugor and Nerbudda Territories, from 1st Oct. 1835, to 31st July, 1836, or ten months; and Proportion of Vaccinations to Population.

Districts.	Populati- on 1832-3	No of Vaccina- tions in 10 months.	Vaccination to	No. of Native Vaccina- tions.	Remarks.
Total  Hussingabad. Seonee  Jubbulpore  Nursingpore  Baitool	1,62,955 1,50,532 2,91,684 6,05,171 2,06,292 2,75,452 4,47,236 3,03,205 1,58,477	701 727 260* 114+1	one in 863 do. 283 do. 1,059 do. 3,923	3 2 1 1 1 0	Proportion of Civil to Military Vaccinations 77 to 1, or Military to Total tary to Total vaccinations on- ly 1 to 78.
Total	19,95,833	1,803	one in 1,108	8	Native Vaccinators.

#### NOTE A.

It may be objected, that town duties have but recently been abolished by Government, and that the imposition of a house tax in 1815 at Bareilly and subsequently a like measure attempted at Benares led to very unhappy consequences. The writer perfectly well recollects these last occurrences, so much to be deplored; but at the same time he also recollects that the suspected object of the house tax in those instances was to compel the inhabitants to supply the means for raising a force, the possible employ of which gave so much umbrage.

To levy a house tax for the purpose of keeping up efficient vaccination, is no more than demanding that the majority should furnish the means of warding off a continually impending public calamity.

Some well informed and humane individuals hold the reluctant opinion, that small pox is the least of two evils on the many occasions of deficient production of the soil which occur in Hindoostan—that famine, the more terrible of the two, is often alleviated by the invasion of the country by some desolating pestilence. Typhus and deficient harvests are known to be reciprocating the agents in the kingdom of Ireland! This condition of a people belongs only to a period of barbarism.

#### NOTE B.

The 8 native vaccinators, having each 300 vaccinating days, and consuming 3 or 4 days at each village in these districts, which are perhaps three to five miles distant from each other, could not easily visit for the purpose of successful vaccination more than 70 or 80 villages in the course of each season of ten months' duration.

And since the villages in the Saugor and Nerbudda territories are in general small, or do not contain as far as my observation extends (in my annual tour of some 600 miles) more than 250 or 300 souls in each village: and also assuming that, no more than three-fourths of the entire population of nearly two millions, to be composed of rural inhabitants; not less than 6000 villages must be annually visited in order to vaccinate the greatest possible number of persons.

This large number of villages being spread over an area of hilly and rocky country, not inferior in extent to the kingdom of Ireland, could not receive the benefit of vaccination in a shorter period than ten years. And as small pox in an epidemical form invades many towns and villages almost yearly; a smaller establishment than three or four times the present one of eight native vaccinators, cannot reasonably be considered as an effective protection to so large a population, or rather for the half of it.

Dr. Guthrie, at page 65 of Mr. Cameron's report on vaccination for 1831, states, that 'small pox from time immemorial seems to have been the scourge 'of India, like the plagues of Egypt.'

Outline of a plan for the extinction of small pox by means of the diffusion of Vaccination in the territories subject to the Bengal Presidency. Sketched at the request of H. Hough, Esq. Superintending Surgeon.

The plan about to be proposed may be attended with greater immediate expense than that at present under trial. But, if the extinction of small pox and the preservation to the state of the thousands who are annually cut off, or rendered burthens on society, by this scourge, be the object of Government, then, the expense ought to be but a very secondary consideration. Besides, is it ultimately less expensive to expend for this purpose a couple of lacks of rupees per annum for a few years, and that with every prospect of effecting the desired object, than to spend Rs. 40,000 per annum in an abortive experiment as at present, for some twenty or more years to come.

1st.—Whatever plan be ultimately adopted for the extermination of small pox, should be so comprehensive, that no part of the territories to which it is to be extended should escape its beneficial operation. Means too should be taken to overcome the prejudices of the natives against vaccination, and this may, in many instances, be effected by opposing their interests to their prejudices, as well as by gaining over some of the Brahmins to the advocacy of vaccination.

2nd.—If every village, on being let on lease, was to be rendered subject to a higher rent in every year that small pox may break out in the village, the inhabitants would, no doubt, avail themselves of the aid of vaccination to avert such a consequence.

3rd.—Every town too, it is imagined, might with great advantage be made, by proclamation, liable to a fine in every year that small pox may prevail in it.

4th.—The cordial co-operation of all persons connected with the diffusion of vaccination should be secured, and this can be accomplished only by remunerating them for their trouble. It was open to objection to impose vaccination as at present, as an extra duty on Civil Surgeons without granting them some consideration. In fact, the doing so is tantamount to reducing their allowances; for, as they receive but a pittance rarely amounting to Rs. 400 per mensem, and are allowed as a set-off to apply for their own benefit all their time beyond what is necessary for the performance of their civil duties, properly so called, it must follow, as a matter of course, that, by imposing on them extra and extraneous duty, they are deprived of a portion of that time which they have hitherto been allowed to devote to trade, and are consequently deprived of a part of what to them is equivalent to pay, or professional emolument.

5th.—The territory under the Bengal Presidency should be divided into districts, each district being of such extent only as to admit of an annual visitation.

6th.—The divisions of the army are (including the field forces) about a dozen.
The vaccine districts may be made the same in number and extent.

7th.—A superintendent of vaccination should be appointed to each district, whose sole duty would be to attend to the diffusion of vaccination and to encourage the natives to adopt the practice. He should make a tour of his district every year, commencing the tour about the 1st November, and finishing by the end of March.

8th.—Every vaccine district should be sub-divided into circles, each circle to contain a certain number of towns and villages.

9th.—A native vaccinator to be appointed to every circle. His duty to be confined to the diffusing of vaccination among the inhabitants of the towns or villages in his circle.

10th.—Every civil surgeon to be appointed a deputy superintendent, and a certain number of the villages around his station to be placed under his superintendence.

11th.—A native vaccinator to be placed under the orders of the civil surgeon.

12.—By the adoption of the above plan, vaccination might be introduced into every town or village without the possibility of even a hamlet being omitted. whereas, at present, it is entirely left to chance what town and villages are visited by the vaccinators—while the far greater number cannot possibly be visited at all.

13th.—Every collector of revenue can furnish a map, or at all events a list of the towns and villages in his collectorship, and this would be the groundwork for forming the vaccine districts into circles, just in the same way as the civil districts are divided into tussuldarships at present.

14th.—A consolidated allowance of Rs. —— per month to be given to superintendents.

15th.—A cooroo or pundit to be attached to every superintendent, who would accompany him in his tour and encourage the people to adopt the practice of vaccination. His pay to be Rs. —— a month.

16th.—Amonthly allowance of Rs. —— a month to be granted to every deputy superintendent, without reference to the amount of his pay as civil surgeon.

17th.—The pay of native vaccinators to be —— Rs. per month.

Encouragement in the way of higher pay or rewards to be held out to vaccinators.

#### REMARKS.

It may be inquired, what is to be done with the vaccinators when no longer required by Government. The answer is, they should be entertained with the understanding that they would be retained no longer than required; or they may, with great advantage, be transferred to the independent states for the purpose of spreading vaccination.

Should the plan for educating subordinate hospital establishments, recommended by Mr. Superintending Surgeon Hough, be adopted, one of the persons so brought up may with great advantage be sent to each circle to keep up vaccination and administer to the wants of the poor inhabitants, in the same manner as the "officiers de sante" do in all the country parts of France. They could also make reports of births and deaths, and furnish statements of the number of houses and inhabitants in their circles, together with much other useful information, for which there is no adequate means at present provided.

(Signed) R. Foley, M. D.

Assistant Surgeon, 2nd Local Horse.
(True Copy.)

H. Hough,

Superintending Surgeon, Saugor Division.

